

Remarks

Claims 1-20 are pending, and claims 1-20 stand rejected. The Applicants have amended claim 8 to fix a typographical error. The Applicants respectfully traverse the rejection set forth by the Examiner.

35 USC § 102 Rejection

The Examiner has rejected claims 1-20 under 35 USC § 102(e) as being anticipated by U.S. Patent 6,782,398 (Bahl). The Applicants submit that claims 1-20 are novel over Bahl for at least the reasons set forth below.

To paraphrase claim 1, a first node on a communication network has first code. The first node executes the first code to establish a communication channel with a second node. The first node also executes the first code to replicate the first code to generate second code, and to provide the second code to the second node over the established communication channel. The second node then executes the second code, which was provided by the first node, to establish a communication channel with a third node. The second node also executes the second code to replicate the second code to generate third code, and to provide the third code to the third node over the established communication channel. The second node also receives data from the first node over the communication channel, and executes the second code to handle the data. Similarly, the third node receives data from the second node over the communication channel, and executes the third code to handle the data.

The Applicants submit that Bahl describes a method very different than that recited in claim 1 of the pending application. Bahl describes a method of maintaining common data sets (i.e., common databases) among a network of computers using replicated commands. The network of computers has update paths (see column 4, lines 56-59) established between the computers. If one computer executes a command to make a change to its data set, then that computer replicates the command and sends the replicated command to one or more computers on the network (see column 4, lines 59-63). The computers that receive the replicated command execute the command to make the same change to their data set, and possibly send the replicated command to other computers (see column 4, lines 63-67).

The method described in Bahl is different than the method of claim 1 in a number of

ways. First, the computers in Bahl each have the appropriate code (i.e., a computer program) to update their data sets. The computers in Bahl merely transmit a replicated command to each other so that the command may be executed by the appropriate computer program already resident on the computers to update their locally-stored data sets. A command is understood to be an instruction to a computer program that causes an action to be carried out (see Microsoft Computer Dictionary). Bahl only describes replicating a command that is executed by a computer program that already exists on each computer.

Claim 1 describes first code (i.e., computer program) that replicates itself to generate second code; and provides the second code to the second node. The second node then executes the second code as generated by the first node. Thus, the second node doesn't previously have the second code to execute, so the second code is provided by the first node. Bahl does not describe replicating code (i.e., a computer program), and transmitting the code to other computers so that these computers may execute the code. The computers in Bahl already have the code stored locally. The method in Bahl only describes transmitting replicated commands that will be executed by the locally-stored code.

Further, the first code replicates itself to generate the second code. Bahl does not teach a command that replicates itself. Column 4, lines 59-63 in Bahl states that the "computer replicates the change". Column 5, lines 29-34 further states that the "computer at which the command is entered replicates the command". Thus, it is clear that the computers in Bahl are executing some computer program to replicate the commands. The commands are not self-replicating. The first code in claim 1 is self replicating which is clear by the language "executing the first code in the first node to ... replicate the first code to generate second code". Because the commands in Bahl are not self-replicating, it is clear that the commands are not "code" as recited in claim 1.

Thus, the Applicants submit that Bahl does not teach the following limitations of claim 1: "executing the first code in the first node to ... replicate the first code to generate second code, and provide the second code to the second node over the communication channel!" and "executing the second code in the second node to ... replicate the second code to generate third code, and provide the third code to the third node over the communication channel".

Secondly, the computers in Bahl already have update paths established (see column 4, lines 56-59). Conversely, there is not communication paths already established between the

nodes of claim 1. To provide the second code to the second node in claim 1, the first node executes the first code to establish a communication channel with the second node. With the communication channel established, the first node provides the replicated second code to the second node over the communication channel. Similarly, to provide the third code to the third node in claim 1, the second node executes the second code (as provided by the first node) to establish a communication channel with the third node. With the communication channel established, the second node provides the replicated third code to the third node over the communication channel. Bahl does not teach or describe establishing the communication channels by executing the replicated code as recited in claim 1.

Thus, the Applicants submit that Bahl does not teach the following limitations of claim 1: “executing the first code in the first node to establish a communication channel with a second node” and “executing the second code in the second node to establish the communication channel with a third node”.

Third, claim 1 recites “receiving data in the second node from the first node over the communication channel and executing the second code in the second node to handle the data”. Claim 1 further recites “receiving the data in the third node from the second node over the communication channel and executing the third code in the third node to handle the data”. Bahl does not describe such functionality. The Examiner may argue that the computers in Bahl transfer “data” amongst each other in the form of “commands” or “messages”. However, such an assertion would support the Applicants prior arguments that the computers in Bahl do not transmit code amongst each other. If the commands in Bahl are considered data, then it is clear that the commands are not code as recited in claim 1.

To reiterate the arguments provided above, a node as recited in claim 1 establishes a communication channel with another node, provide replicated code to the node over the communication channel, and provides data to the node which is handled by the replicated code. Bahl does not teach such functionality. Bahl merely describes transmitting commands between multiple computers so that the computers may maintain a common data set.

On page 3 of the Office action, the Examiner tries to sum up the essence of Bahl by stating that “the command or message or software is replicating itself, and copy or transmit to at least one of neighboring computers”. The Examiner is mischaracterizing the teaching of Bahl, because the commands in Bahl are not self-replicating. The commands in Bahl are replicated by

some computer program on the computer as previously stated.

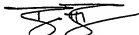
For at least the reasons provided above, the Applicants submit that claim 1 is novel over Bahl. The Applicants further submit that independent claim 11 and the dependent claims are novel for the same reasons.

Conclusion

The Applicants submit that the pending claims are novel for at least the reasons provided above. The Applicants thus respectfully ask the Examiner to allow claims 1-20.

Respectfully submitted,

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SIGNATURE OF PRACTITIONER

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